

**1. A method comprising:**

storing a description of a first frame wherein said description comprises:

(1) a frame length; and

(2) a first transmission rate;

receiving a first portion of said first frame wherein the length of said first portion is less than said frame length and is based on said first transmission rate;

queuing said first portion of said first frame;

transmitting said first portion of said first frame at said first transmission rate into a shared-communications channel; and

receiving a second portion of said first frame after said transmission of said first portion has started.

**2. The method of claim 1 wherein said description further comprises a second transmission rate and at least one form of modulation.**

**3. The method of claim 2 wherein said at least one form of modulation comprises orthogonal frequency division multiplexing.**

**4. The method of claim 1 further comprising queuing said second portion of said first frame wherein the length of said second portion is less than said frame length, and is based on said first transmission rate and the time required to receive said second portion.**

**5. A apparatus comprising:**

an interface controller for:

(1) receiving a first portion of a first frame; and

(2) receiving a second portion of a first frame;

a memory for:

(1) storing a description of said first frame wherein said description comprises a frame length and a first transmission rate; and

(2) queuing said first portion of said first frame wherein the size of said queue is based on said first transmission rate and the time required to receive said first portion; and

a transmitter for transmitting said first portion of said first frame at said first transmission rate into a shared-communications channel.

**6. The apparatus of claim 5 wherein said description further comprises a second transmission rate and at least one form of modulation.**

**7.** The apparatus of claim 6 wherein said at least one form of modulation comprises orthogonal frequency division multiplexing.

**8.** The apparatus of claim 5 wherein said memory is also for queuing said second portion of said first frame wherein the length of said second portion is less than said frame length; and is based on said first transmission rate and the time required to receive said second portion.

**9.** The apparatus of claim 5 wherein said transmitter operates in accordance with the IEEE 802.11 air interface protocol.

**10.** A method comprising:

storing a first description wherein said first description comprises:

- (1) a first frame length; and
- (2) a first transmission rate;

transmitting a queued portion of a first frame at said first transmission rate into a shared-communications channel;

removing said queued portion of said first frame wherein said removal is based on said first frame length;

storing a second description wherein said second description comprises:

- (1) a second frame length; and
- (2) a second transmission rate;

queuing a first portion of a second frame wherein the length of said first portion is less than said second frame length and is based on said first transmission rate; and

transmitting said first portion of said second frame at said second transmission rate into said shared-communications channel.

**11.** The method of claim 10 wherein said first transmission rate and said second transmission rate are different.

**12.** The method of claim 10 further comprising queuing a second portion of said second frame wherein the length of said second portion is less than said second frame length and is based on said second transmission rate.

**13.** An apparatus comprising:

a memory for:

- (1) storing a first description wherein said first description comprises a first frame length and a first transmission rate;

- (2) storing a second description wherein said second description comprises a second frame length and a second transmission rate; and
- (3) queuing a first portion of a second frame wherein the length of said first portion is less than said second frame length and is based on said first transmission rate;

a transmitter for:

- (1) transmitting a queued portion of a first frame at said first transmission rate into a shared-communications channel; and
- (2) transmitting said first portion of said second frame at said second transmission rate into said shared-communications channel; and

a processor for removing said first description and said queued portion of said first frame wherein said removal is based on said first frame length.

**14.** The apparatus of claim 13 wherein said first transmission rate and said second transmission rate are different.

**15.** The apparatus of claim 13 wherein said memory is also for queuing a second portion of said second frame wherein the length of said second portion is less than said second frame length and is based on said second transmission rate.

**16.** The apparatus of claim 13 wherein said transmitter operates in accordance with the IEEE 802.11 air interface protocol.

**17.** A method comprising:

storing a first description of a first frame wherein said first description comprises:

- (1) a first frame length;
- (2) a first transmission rate; and
- (3) a first class of service with which said first frame is associated;

queuing a first portion of said first frame in a first queue wherein said first portion of said first frame comprises  $m$  octets, wherein  $m$  is a positive integer, and wherein the value of  $m$  is based on said first transmission rate;

transmitting said first portion of said first frame at said first transmission rate into a shared-communications channel;

receiving a second portion of said first frame after said transmission of said first portion has started;

storing a second description of a second frame after said storing of said first description wherein said second description comprises:

(1) a second frame length;  
(2) a second transmission rate; and  
(3) said second class of service with which said second frame is associated;  
queueing a portion of said second frame wherein said portion of said second frame  
comprises  $n$  octets, wherein  $n$  is a positive integer, and wherein the value of  $n$  is based on  
said second transmission rate; and  
transmitting said portion of said second frame at said second transmission rate into  
said shared-communications channel.

**18.** The method of claim 17 wherein said first transmission rate and said second  
transmission rate are different.

**19.** The method of claim 17 further comprising queueing a second portion of said  
second frame wherein the length of said second portion is less than said second frame  
length and is based on said second transmission rate.

**20.** The method of claim 17 wherein said transmitting is performed in accordance  
with the IEEE 802.11 air interface protocol.